Edw. H. Clarke

RESTORATIVE MEDICINE.

AN

HARVEIAN ANNUAL ORATION,

DELIVERED AT THE

ROYAL COLLEGE OF PHYSICIANS, LONDON,

ON JUNE 21, 1871.
(The 210th Anniversary.)

BY

THOMAS KING CHAMBERS, M.D., Etc.

WITH

TWO SEQUELS.

PHILADELPHIA:
HENRY C. LEA.
1871.

COLLINS, PRINTER.

PREFACE.

For upwards of two centuries the London College of Physicians complied with the letter of Harvey's wishes, as expressed in his Deed of Gift, by causing an annual oration to be delivered in Latin. But during the last few years there has been a growing conviction that in this pedantic adherence to the words, we were departing from the spirit, of the founder of the ceremony, the object of which is to stir up the audience to a diligent study of physiology and to professional *esprit de corps*. An "exhortation to mutual love and affection," as Harvey words it, was fitly enough of old couched in a language more familiar than all besides their own to the brotherhood of science in various countries. Is it too hurried an anticipation of nature to look upon English as now the most appropriate medium for circulating such exhortations among physicians in Europe? At all events, across the Atlantic and Pacific there are bands of relatives, whom we are much prouder to claim, and to exhort to mutual

love and affection in a tongue that recalls the fact of blood being thicker than water. This year the Oration, though delivered in England, shall be printed and published in America first. The offering is a poor one—then let it be repaid by a richer. No one can be more sensible than I am of the superficial manner in which several important questions are handled; but that very fact may lead others to more profound reflections. A judicious critic remarks that, in the Sequels especially, the coloring is very local. True—otherwise it would be unnatural. And Americans have not the same troubles as we have. But they may have them soon. Let them listen kindly to the outpouring of our griefs, and we will promise to sympathize with theirs when they tell them.

T. K. C.

London, June, 1871.

Fellow-Countrymen of Harvey!

I know I shall be carrying out in spirit the intention of this oration's founder, when I ask you to join me to-day in reviewing the contemporary progress of therapeutics. While science is our privilege, art is our duty, and quite as much as science is capable of advance by that method of direct experiment, to advocate which Harvey bids me stand here. Now is a fitting time to take such a review diligently and often, for I am sure that this our art of healing is passing through a most trying crisis, which will decide the direction and pace of its onward march in a most sovereign manner.

Let our motto be "Vigilemus," or we shall stumble and block the road.

This crisis I have elsewhere described by saying that medicine is now entering upon a biological phase. By this I mean that our practice is becoming yearly more and more influenced by that idea of Disease which paints it as a mode of living,

as an imperfect form of undeveloped vitality, as a loss of something present in health.

Is this new? is it true?

It is new; it is not implied in former theories of therapeutics. I must ask you to bear a little with the unpopular subject of medical history; for the advocates of various principles of healing have made their differences so strongly felt, that their important point of resemblance is somewhat overshadowed. And their point of resemblance is that in which they differ from the newer medicine of to-day.

The Athenian physicians were the first to recognize that health and sickness obeyed a universal law,* and not the arbitrary wills of good or bad powers. They considered the important point in disease was *the excess of some constituent* of the body—of phlegm in winter, of blood in spring, of yellow bile in summer, of black bile in autumn. This view still survives in the practice of ELIMINATION, and in the phrases of "reducing the fever," "clearing out the liver," "getting rid of the bile," and the like, so often in the mouths of patients.

* Νόμος πάντα κρατύνει.—HIPPOCRATES, "*de Geniturâ*," I. 1.

Galen brought into physiology the notion of Force, as distinct from its object. To Plato's Life of Nutrition, Life of Animal Motion, Life of Volition, he added the idea of the foreign force of Disease. Diseases were foreign forces, foes to the native, and the duty of a physician lay in opposing them (ἐναντίωσις). Remedies were to be sought which in a healthy man would produce abnormal symptoms contrary to those of the disease. Nobody can deny that this CURE BY CONTRARIES holds its ground bravely, and will do so till we find sleeplessness not to be alleviated by narcotics, constipation not to yield to purgatives.

Its permanence has been in a great measure due to its openness to accept modifications and reforms. One of the most important of these is an extension of Hippocrates' suggestion that "diseases naturally contain their own cure" (νούσων φύσιες ἰητροί) into Sydenham's designation of their phenomena as an EFFORT OF NATURE (*Naturæ conamen*). This theory has been so salutary in promoting a milder and better treatment of acute ailments, that it too still influences deeply our pathology and therapeutics.

NEUTRALIZATION, by what may be called Antidotes, is the application of chemistry to the Cure

by Contraries. During a given disease there is found in the body a substance differing from what is found in health. United with certain drugs, it forms a third neutral and harmless substance.

We will give those drugs. If the urine be over-acid, we will give alkalies; if it be alkaline, we will give acids. It seems as if contagious fevers were set in action by a ferment in the blood, so we will administer, in as large doses as we dare, chemicals which decompose ferments. Though sometimes leading us into blunders, this idea has certainly taught modes of treatment which relieve illness; so that it has advanced along with advancing chemistry from the time of our famous co-fellow, Dr. Thomas Willis,* author of the "Pharmaceutice Rationalis," up to the present time. And seeing that our generation of fellows has contributed a Dr. Prout, a Dr. Bence Jones, a Dr. Garrod, and many others to the laborers in the cause, we cannot be surprised that valuable therapeutical results have arisen.

COUNTER-IRRITATION† is a principle of treat-

* Though Willis's reputation was mainly connected with Oxford, he was admitted an honorary fellow of our College in 1664.

† Dr. Parry calls it the Cure of Disease by "Conversion."

ment which owes its prevalent application to the study of morbid anatomy. The idea is, by exciting artificial diseased action in parts under our control, to divert the diseased actions from a less accessible or more hazardous localization. We see before us the fact that a spontaneously generated secondary disease is often rapidly followed by the cessation of a primary one, whether milder or more serious; and we infer with reason that the same result will be found if the secondary disease be the consequence of a drug. This therapeutic theory is obviously made more universally applicable by an exact determination of the parts affected, and, therefore, with the advance of morbid anatomy, has more influenced our practice. That this advance will continue, we have the guarantee of the devotion of our own Johnson, and Murchison, and Ogle, and Quain, and Sibson.

All rational cures seem to have resolved themselves into these five, namely, the Cures by Elimination, by Opposition of Contraries, by Assisting Nature, by Neutralization, by Counter-irritation.

But that word seems to imply change of nature rather than change of place, whereas in most of the examples of the influence of this principle the curative morbid process is either identical or closely related to the ailment.

All except mere reactionary speculators have, till lately, followed the advances here implied. Examine each, and you will see that they are all agreed in one feeling as to the nature of disease, namely, that there is therein added to the animal frame something which needs to be reduced, or opposed, or assisted, or neutralized, or concentrated. Now it seems to me that the tendency of the medicine of to-day is to take an essentially opposite view. Daily stronger and stronger an impression is being borne in upon the practitioner's mind, as expressed in his acts, that disease is something less, not something more, than life. Under the light of advancing physiology, morbid substances and processes appear examples of arrested development, each one the more as the more intimate is our acquaintance with it. The end and aim of happy treatment is, therefore, essentially an addition, an endeavor to retain, to restore, to develop into fuller life those identical morbid substances and processes which have hitherto been uniformly condemned to expulsion. When we are sick,

> "'Tis life of which our limbs are scant,
> 'Tis life, more life, for which we pant,
> More life, and fuller, that we want."

To answer the question as to novelty in a more concrete form, take the yet unfinished collection of monographs on specified diseases which we are owing to the labors of our accomplished fellow, Dr. Reynolds—the first and second volumes of the "System of Medicine." Compare each subject with its prototype in the "Cyclopædia of Practical Medicine," published thirty-five years ago. And in no single essay will you find the treatment recently recommended to be more evacuant than that of old, or more antipathic, or more counter-irritant. In a few instances it remains unaltered. But in the most you read of medicines advised "to support the strength of the patient" in diseases where the writer's teacher would have used the most active debilitants, with the avowed purpose of weakening the disease.

The volumes are in the hands of all, and I will not sit in the seat of the reviewer by reciting examples. We have all seen the day when hospital physicians gave five grains of calomel three times a day to cure acute rheumatism, mercurials and purgatives in enteric fevers, tartar emetic in full doses and venesection stroke upon stroke in pneumonia, narcotized with monstrous doses of opium the brain of a raving drunkard, exhausted with

artificial sweats the moist skin of a gouty man, or turned his urine alkaline with soda and potash, and scalped with blisters the acute maniac and the hydrocephalic child. Were they not right according to the principles of Elimination, Contraria Contrariis, or Assisting Nature, or Neutralization, or Counter-irritation? Go round the wards now, and you will find these extremes at any rate as nearly extinct as flint-locks or duelling. Indeed the extinction has been in some instances too rapid; physicians have so hasted to cry ἔφυγον κάκον, that they have forgotten to add εὗρον ἀμεῖνον; and, unready with a substitute, have displaced that which was certainly better than a vague expectancy.

If you look down the lists of new articles of materia medica, brought into common use of late, you will see that none are of a nature to augment destructive metamorphosis. Cod-liver oil, hypophosphite of lime, phosphates of iron, manganese, soda and potass, ox-gall, pepsine, pancreatine, are familiar instances of those whose intention is to form a basis of new cell-growth, thus being directly constructive.

The surgeon, too, when the skin is lost or wounded, builds up as good a restoration or imitation as he can, with collodion or some other

impermeable substance, to shield the inside tissues, instead of tearing them open to the bitter air, as in the horrible operation of dressing and cleaning. Again, with the expressed aim of limiting the resolution into their elements of diseased tissues, there are largely used anticatalytics, such as carbolic acid, the subsulphites of lime, soda, and ammonia, while several sulpho-carbolates, chlorine, etc., are administered internally. On the other hand, permanganates, whose oxidizing action is their distinguishing character, are given only when it is held wise to skip the dangers of the first stages of catalysis by hurrying them on. I do not know that I can cite alcohol as a new remedy, seeing it came into use so soon after the Deluge, but at all events our notions concerning it are new. Our fathers looked upon it as a fuel to life's lamp, augmenting heat, secretion, power, and vital action, and consumption in general. We find it to be in reality a damper to the flame. It has been used as a medicine, and as a good friend to poor humanity, throughout all these centuries; but now in a somewhat different class of cases, and with a better result, I trust. Though not a repairer of the waste, it is a conservator, and has thereby its own, though lesser, value. This

change of use, without change of tool, has befallen many other old, established remedies, such as iron, digitalis, quinia, arsenic, warmth, oxygen.

If you go beyond materia medica into pharmacy, you will notice that the energy exhibited by the deviser of new forms of old favorites has turned itself to constructing drugs in the proportion of nearly three to one of destructives. This shows the direction of prescriber's requirements.

There is an interesting class of substances, of old called "alteratives," which may probably have light thrown upon them by the new movement of therapeutic thought. These agents are not in any wise eliminative, nor do they arrest elimination; in moderate doses they cause no symptom either opposed to, or like the diseases they cure; their effects do not resemble the efforts of nature during sickness; and any toxic action they may exert is not enough to counteract anything. So that I do not see how their use is to be reconciled to any of the older therapeutic theories. Typical instances of this class are the iodides and bromides, of which the tonnage consumed is monthly increasing. Their sole effect in medicinal doses seems to be cure. Either nothing happens, or certain failing functions are restored to health

without any morbid tissue being destroyed. The diseases to which they are applicable are so various, that it appears at first impossible to find any common point at which the successful physic has touched them all. The connection is truly not obvious between syphilis, aneurism, epilepsy, neuralgia, gout, ague, hysteria, lead-poison, and acute hydrocephalus. Yet in certain cases of all such ailments this class of drugs is useful, and we needs must discover wherein the kinship lies, or we can never attain to a rational use of the remedy. It has struck me, and indeed I usually act upon the thought, that they are related to one another in virtue of an imperfect vitality of the white fibrous tissues with which bones and trunk-nerves are sheathed. When a periosteum is tender from the syphilitic poison, iodide of potassium acts like a charm; while its influence on a chancre or sore-throat is scarce perceptible. The same may be observed in rheumatism, and in neuralgia. The bromide prevents with considerable certainty epileptic attacks which arise from injuries and jars to the pericranium, with less certainty obscure cases whose cause you cannot trace, and very rarely congenital or hereditary instances of the disease. It heals the tissue, not the epilepsy. Deep-seated

gout racking the tendons is relieved by the iodide, but gouty urine and gouty indigestion are untouched. Lead-poisoning is also cured by the iodide, when it is exhibited in painful or paralytic conditions of the limbs, but colic is not benefited. The same drug has rescued from death in a wonderful way cases of acute hydrocephalus where the membranes of the brain were affected, but has apparently no influence when the cerebral substance is inflamed. I should be disposed therefore to assign a neural pathology to those cases of hysteria, and of ague, which I read have been relieved by these salts; for I suppose they will renew to health the sheaths of the nerves as well as the sheaths of the tendons and bones.

That which has above all things contributed to change of practice is the gradual course of change in our ideas of inflammation. The last great teacher who has published a monograph on the subject, Dr. Alison, depicts it as "a local increase of a vital property,"* and urges the use of blood-letting to subdue it, on the express ground that the evacuation "weakens the heart's action;"† to

* Library of Practical Medicine, vol. i. p. 64.

† Ibid., p. 98.

which weakening influence, indeed, he ascribes the power of all other antiphlogistics whatsoever. Monographs on inflammation have not been written of late years, but morbid anatomists, chemists, physiologists, and clinical teachers, of all nations and tongues, unite in speaking of it as "a perversion of nutrition." And to each one in his own department the perversion displays itself as in the direction of incompleteness. The anatomist sees in it the *premature expulsion* of new-born germinal matter, which should have budded into tissues; but which now at best becomes a deformed scar, and more usually dies off as pus. The chemist points out the *defective oxygenation* which causes lithate of ammonia, uric acid, or oxalates to appear in the urine, or an excess of fibrin in the blood. Inflammation is a cooling, not a kindling, of the furnace, in respect of chemical power. The physiologist discovers the swelling, redness, and heat of inflamed parts to be due to a *loss of elasticity in the smaller arteries.* He regrets his inability at present to explain the general rise of temperature; but as that sometimes occurs after death, he does not think it an evidence of increased life. The practitioner at the bedside, casting about among the means at his command

for something to cut short inflammation with, finds the nearest approach to such an end lies in replacing the loss of elasticity by pressure, by cold, by astringents; or by spurring up the contractile arteries to exertion with nervine drugs. Among the latter he reports well of quinine, and finding that by its use the fever-heat is quickly lowered, he looks upon that high temperature as arising from diminished nervous control.

Morbid anatomists have also done much to shake the fixedness of our methods of healing, by finding evidence to show that what appear superficially different *forms* of morbid products are in reality different *grades*. That which distinguishes them is a higher or lower degree of vitality, a more or less of the characters of living flesh. As an instance I may cite Gerber's classification of tubercle into (1) granular or unorganized, (2) cytoblastic, (3) cellular, (4) filamentous. Each form is a little higher than the other in the scale of resemblance to tissue.

This is no guide to prognosis, for the more highly organized growths may be the most destructive to neighboring parts—indeed in the case of cancer it would seem as if the danger were

directly in ratio to the organization—but it can hardly fail to influence treatment.

Another powerful agitator of therapeutic aims is the distinction made between disease and its cause, arising out of the attention paid to morbid germs. I think it wise at present to use the word germ in its widest sense, as meaning either a fragment of organic matter in a state of decomposition, or a fragment capable of resuming vital characters, or a separate individual. The investigation is being carried on by our co-fellows Dr. Beale and Dr. Sanderson with the aid of the highest powers of mind and microscope; and the facts elicited are too widely known to make needful more than allusion. But they all combine in leading us to draw a distinct line between the treatment of the disease and the treatment of the cause, between the management of the wound and of the bullet, which our forefathers were apt to pass over in their views of enthetic disorders. Whatever be the etiology of the germ, it is clear that the condition which results from it can be looked upon only as an arrest by obstruction in the life of the tissues where it is inserted.

The becoming conscious of these invisible angels of death, hourly drifting around us, reminds one

of the opening of that mythical box of evils, with which Horace has made us familiar. Yet here, too, there is a hopeful germ at the bottom. We have to deal with (let us say) an unhealthy, stagnant ulcer: we strip out a bit of clean skin, not so big as a mustard-seed, from the patient or a friend, and we plant it among the torpid granulations; it sticks, it unites, it lives, it feels, and becomes with its new home one flesh not to be put asunder. John Hunter had taught us to expect this. But better still, it becomes a centre of new growth. Healthy skin begins to form round its edges. Praise be to the All-merciful! not only disease, but health also, is contagious. Better still, it is infectious—it has stepped over the gulf of festering stagnation, and is sowing growth along the neighboring margin, throwing out peninsulas and promontories to join the parent piece of grafted skin. One who has experienced in his own person what uphill work cicatrization of a large surface is, must be pardoned some exultation at this surgical promise, and may be allowed an Utopian dream of restoration which would throw present success far into the shade. Even the practitioner upon others' ailments cannot but feel enthusiasm at

the revelation of this important law of nature. Does it not promise to explain the hitherto inexplicable benefit derived from firing, blisters, mustard, croton oil, caustic potass, and other means of cure by external sores? It is when the artificial sore is getting well that the benefit arises: as the new healthy tissue shapes itself outside, it infects the diseased parts with health.

It is possible also that by applying the same principle to blood-letting we might learn the true use of that now unpopular treatment. We have left it off because it failed to do what we had been led to expect of it; but may it not have another use in a differently selected class of cases? May it not set in action the healthy formation of new blood, replacing over and above the previous loss? However, I must not trespass on your time with untried speculations.

I am not telling the tale of a buried event, but aiding to record what is passing under your eyes, an instance of theory grounded on experiment paving the way for practice. Not experience is teaching us these things, but designed scientific experiment. It is this path of progress which our immortal Harvey bids me to-day exhort you to

follow.* Arduous indeed it is, and tangled, yet leading always on, and much freer from pitfalls than that direct empirical method of trying remedies which Hippocrates has so emphatically pronounced "slippery." Science may guide us slowly, but she never guides us backwards.

In no direction does there seem a more favorable opening for experiment, at the present day, than in that to which the name of Harvey is forever attached. The mysteries of the circulation are now open, to be unravelled by new instruments of precision of yearly growing ingenuity. The improved microscope, the ophthalmoscope, the sphygmograph, and the dynamometer, may help lesser wits to make discoveries of which Harvey would have been proud: while the use of chloroform removes the serious objection urged by humanity against experiments on animals. We are not asleep: our Sanderson is justifying his scientific surname, by devoting to the increase of physiological knowledge months and years during

* The commemoration of Benefactors is to be accompanied "with an Exhortation to the Fellows and Members of the said College, to search and study out the secrets of nature by way of experiment."—HARVEY'S *Deed of Gift, MS.*

which, with less labor, he might have heaped up wealth. I especially introduce his name here, because the sphygmograph, which he has tried to make popular among us,* is the embodied acting up to a principle of great importance in Harvey's eyes, the ocular demonstration of scientific truth. I need go no farther than this room for an instance. Those brown boards over our heads,† in spite of time and neglect, exhibit the complete arterial systems of two bodies, dissected out and dried *in situ*. It is a work of months, if not of years, and I doubt not but that some will denounce as sinful waste the employment of Harvey's fingers in such mechanical handicraft. He thought differently, and held no labor thrown away if spent in producing a lively mental impression, such as we gain from those preparations. Herein lies the great merit of the sphygmograph. The obscure feelings of the finger-tips are brought under the cognizance of the sense that most directly affects the mind, "*oculis subjecta fidelibus*," so as not only to be shown, but "delivered in number and

* In the Lent Lectures of 1869 at the College, and in his "Handbook of the Sphygmograph."

† The Tabulæ Harveianæ in the gallery.

weight," as the son of Sirach advises all material things to be estimated. Do not think of the pulse-portrait-painter, even as at present perfected, as a mere physiological toy. Had it done no other good deed, eternal gratitude would be its due for putting down the tyrannical imposture of the *tactus eruditus:* for no one has vaunted such erudition from the time it could be tested in black and white. But I think a sphygmograph can do more than that; it can tell us what really existing movements to feel for in the pulse. The tool may sharpen the wits that use it, and teach its pupils in the end to dispense with its services.

Since Harvey, the physiology of the sanguineous circulation has been pushed on by many distinguished men, but I do not know of any step more important than that made during the last two years by the French *savants*, Messrs. Legros and Onimus. By an elaborate series of experiments they have deciphered the riddle which has puzzled Harvey and Hunter, Magendie and Claude Bernard—how the microscopic arteries assist the current of the blood through the capillaries. Indeed it puzzled the last-named physiologist so much, that he definitely confined the agency of the arterioles to resisting the force of the heart. To

Messrs. Legros and Onimus this did not seem to accord with the economy of nature in working the way of fluids through other organic tubes. It was a wasteful expenditure of force. Spurred on by this thought, they sought, and they found, in the arterioles a regular peristaltic wave, an intermittent progressive muscular action, such as that which carries the morsels down the œsophagus, rolls the mass round and round in the stomach, and passes it along the ilia. With a microscope they were able to follow this newly seen wave in the frog's web, then to detect it in the transparent part of the rabbit's ear, then to see it with the ophthalmoscope in the human retina. It seems to me that a very wide field indeed for experiment is opened by these observations. A knowledge of the action of remedies on this peristaltic circulation generally would form a new standing-ground for rational therapeutics; and the discoveries by Waller and Bernard of special systems of vaso-motor nerves, governing special parts, might be made practically useful.

It seems to me, also, that our various mechanical and other means of observation have arrived at a degree of perfection sufficient to allow of

prosecuting with advantage researches into the genesis of disease by direct experiment.

The most certain way of knowing how a thing is generated is to generate it yourself. The lower animals must of course afford the material on which the bulk of these experiments can be made; and it is, therefore, of the utmost importance to know how their bodies and liabilities to morbid phenomena differ from those possessed by us, so that the necessary allowances may be calculated.

Most opportune to the gaining such knowledge is the prospect before the country of the permanent establishment of an institution for the study of the diseases of animals. I am in hopes that the certainty of advancing science, open to the staff of this institution, will make its offices an object of ambition to those among us whose age renders ambition still graceful. They will be able to feel not only that they are promoting the selfish interests of mankind, but that they are repaying in a substantial manner the services of our devoted immemorial slaves. For it must be understood that the final view of the foundation is distinctly charitable, and that the cure of animal disease is the end to be attained by its study.

The bulk of these experiments must be doubt-

less carried out on inferior creatures, and, therefore, must wait upon a parallel prosecution of comparative pathology. But there are examples of the study of disease by Enthesis to which our own noble bodies have lent themselves—lent for an ulterior advantage, no doubt, and therefore I used a word implying no notion of sacrifice. The cases of vaccinia and syphilis may be especially cited as instances of a more than usual knowledge of a disease's etiology, being due to a study of it as artificially implanted.

All, however, cannot hope so usefully "to study and search out the secrets of nature." Many wise people, praiseworthy for self-knowledge, are aware that the quality of their intellectual powers, bodily weakness, education, or social duties, disable them for playing the part. Harvey bids me say a word to them too, when he enjoins the orator to hold up for imitation those who have ministered of their substance to our college.

The "Comemoration of all the Benefactors of ye sd Colleg by name," has its place taken by those boards in the theatre on which even the smallest contributions are from time to time recorded. We have not forgotten even the window-

cushions and table given by the unlucky Lady Arabella Stuart, though they perished in the fire of London, I suppose. Let us not think scorn of a care for the bodily comforts of those who are executing a trust for our benefit. Hospitality, of which these gifts are an humble form, is a high Christian virtue, and is all the higher for her humbleness. I feel very glad that of late years our college has itself resumed the exercise of this virtue by reviving, albeit in the somewhat sad shape of conversazione, that domestic feast which Harvey gave us money to pay for.* It had been omitted for many years; not, I fear, from self-denial on the part of the Fellows, but because a proud and luxurious age despised the frugal festivities of its forefathers. To those simple souls, as to Sir Toby Belch, "cakes and ale" was a synonym for a merry-making. On less than that, indeed, the Censors are expected to make merry once a month;† and, doubtless, the annual jovi-

* "And that once every year there shall be a general feast kept within the walls of ye sd colleg for all ye ffellows yt shall please to come."—HARVEY'S *Deed of Gift, MS.*

† In accordance with Harvey's wish, a packet of cakes and coffee is provided for each Censor at their meeting.

ality was in proportion as wholesome and economical as our monthly repast. You, however, have degraded into a ballot-box the punch-bowl given you by Dr. Friend and his co-censors,* and scorn to dine abroad unless tempted by French cookery and the costliest vintages. We have at any rate the grace to feel that gormandizing would be misplaced within our walls, and until prevalent habits become more moderate, I do not see that we could carry out Harvey's wishes in any mode better than by this conversazione. Let us, however, look upon it as a provisional feast.

Some of our benefactors are distinguished as the founders of sundry lectureships called after their names, with which you are familiar. Applied, as intended, to the ocular demonstration of physiological discoveries, these are still made useful.

Notwithstanding, I cannot conscientiously exhort you to a literal following of Croone, or Gulston, or Lumley. The date of a small volume in your library, published by William Caxton at the bottom of the next street in 1471, reminds you that four centuries ago there had begun a revolution which renders the foundation of new Lectureships

* In 1719.

an anachronism. The printing-press has crushed the pulpit. It is wisé to accept the fact, and to devote to the spread of knowledge by the newer mode, those funds in the disposal of which we may wish to rival the open-handed among our ancestors. There is no way by which a man shall more surely hand down his surname to futurity than by linking it with the publication of the researches of others in a more liberal form than their incomes allow. Remember that you have at your disposal not your own purses only, but that those of your patients will often open at your bidding. I read in the annals that the table and cushions I have alluded to were given "suasu Doctoris Moundefordi," and I commend the example to your imitation. Dr. Moundeford had been a kind friend to Lady Arabella during her struggle against the mean tyranny of James the First; and he apparently preferred that the graceful acknowledgment of his kindness should be paid to his college rather than to himself.

Those who like modern instances best, may find one in the noble contest last year between our cofellow Dr. Quain and Mr. Cunliffe the banker, as to which should give £2000 to secure the build-

ing of the Brown Institution for studying diseases of animals.

I have represented designed experiment as the sharpest spur to the progress of rational medicine. But doubtless the guiding-rein is observing experience. And it is by experience alone that we can be led to the answer of the question which I asked at the beginning, namely, whether the view which influences modern therapeutics be true as well as new. Some hint as to the future answer may be gained from the more favorable prognosis we are now enabled to give the several diseases whose course is marked and import grave, such as rheumatic fever, pericarditis, pneumonia, typhus. But the final solution must be found after many years in a continuance of the physical improvement noticeable throughout our native population, in increased length of life and diminished liability to fatal sickness, as witnessed first by increase in the profits divided at insurance offices, and latterly by the lessened mortality of the whole population.

To the court of experience we are one and all of us called as jurors. There are millions of experiments performed daily by observers who can regulate their conditions. But how are we prepared for turning the experiments into account?

What training does the medical student go through which shall enable him to use his franchise? I cannot but say that those of us who are teachers in schools have greatly failed of our duties in this respect. I have never yet, as examiner, come across a candidate for diploma, instructed in the art of systematically observing and recording the action of medicines. What an awful waste of raw material is here! Surely the chairs of materia medica would be better employed in training a class how to observe, than in discussing varieties of Cinchona bark or the shape of Senna leaves; a kind of knowledge which no one ever really gets from lectures, but if he requires it, either from a book or a warehouse.

To the court of experience we are one and all of us called as jurors, but more especially those who have the privilege of hospital practice. The duty of aiding in the decision of these questions, by communicating the knowledge gained from our patients, is one that cannot be evaded, and is incumbent upon us to the end of our lives. It can no more be thrown off than can the obligations of a crown, or of inherited wealth. I have sometimes been asked how it is that medical men seldom retire, and usually die in harness; and I say

that their harness is their uniform, their decoration, their chiefest reward, and that they lay it aside only at the bidding of their commander-in-chief. When I was in Italy some years ago, on a holiday tour enforced by a surgical operation, I hesitated whether I should not lengthen my holiday to the end of my life, and leave the race to the swift, the battle to the strong. "Were it not better done, as others use, to sport with Amaryllis in the shade, or with the tangles of Neæra's hair?" In visiting Pompeii, I stopped more than once at a sentry-box by the sea-gate, where there were found the skeleton and arms of a Roman legionary set on guard eighteen hundred years ago. That nameless sentry, I thought, ignorant, sensual heathen, whose bones lie mouldering among the debris of brothels of unmentionable atrocity and filthy wineshops, will yet to the resurrection-call answer "Adsum, Domine!" from a vantage-ground of dignity second to none in the universe, —at his post, waiting for orders to leave. And so I turned and came home.

TWO SEQUELS.

SEQUEL I.

Evening of same day. On a terrace walk, under an oak, a table is set with summer fruit, biscuits, cigars. Orator and Mary bring materials for conviviality.

To them, carrying their chairs out of the dining-room,

The Vicar,	Psychicus,
Medicus,	Chirurgus,
Chemicus,	Mr. Vain Pomps, *of the Treasury.*

Orator. Londoners are the true owners of the country. I wonder how often a broad-acred squire has his dessert set out in the sunset.

Vicar. Probably he has enough open air during the day. And for my own part, except

that one can smoke here without black looks from Mrs. Orator, I do not see why we were not as well off indoors.

VAIN POMPS. It really is a great luxury to rest one's brains after dinner in a quiet kind of hole like this. I can't understand why Orator, who is not at all a man for society and town amusements and that sort of thing, should have said in his sermon to-day anything against doctors retiring. Theirs is not pleasant work. And I should have thought the best thing to do would be to make your fortune as quick as you can, cut the M.D., and buy a nice place with a good acreage, so as to give you a standing in the county. Then you can get made a magistrate, and be friendly with the county people, and so on, instead of—

MEDICUS. Oh! you woke up at that point, did you? Well, I must say, that though I do not go along with Orator in some of the medical theories, which narcotized you (I was really ashamed of having taken you to the College), I think he was quite right in deprecating retirement from active life, except one is absolutely shelved. If a man has the style of ambition you describe, he should go into trade, where a fortune may be made quickly, before experience has dried up the green tastes for

such joys as cultivating county folks, sitting on the bench of magistrates, and raising prize pigs.

CHIRURGUS. My wife's uncle, Dr. Pendennis, gave up practice at forty-eight, and lived happily enough near here. But he was an easy-going sort of man, who never really loved his profession, in spite of his success; indeed, he was rather ashamed of it, and hated to be addressed as doctor. He had also kept up a taste for shooting from boyhood, and liked looking at horses.

VICAR. To enjoy the life of a real country gentleman requires early training.

PSYCHICUS. To enjoy anything requires early training. Monsieur Chomel in "Les Dyspepsies" describes Sir Astley Cooper, who was so genial in his proper sphere, as looking over the grand oaks in his park, wishing he had the pluck to hang himself upon one of them. I dare say that is a Parisian myth; but it embodies a truth, nevertheless. There is no more obstinate hypochondriac than your patientless physician, and a good many even come under the charge of us specialists. When a man has once got his brains to digest hard work, it becomes a food to him, and he can't live without it.

VAIN POMPS. Poor devil!

VICAR. Why pity him? he has secured a new pleasure. Putting aside even all ideas of duty, my experience is that more happiness is to be got out of holiday-making than retiring. No business, no holidays.

MEDICUS. I must toast that sentiment. Chemicus, hand me that bottle, as you have no occasion for it. And ask Mary for some boiling water.

CHEMICUS. Shade of Sydenham! What a label! "Old Constitution Monongahela Rye Whiskey." Can you expect any reform or progress under such tory-sounding inspiration?

ORATOR. No party politics, if you please. In our late civil war, if Sydenham sided with the parliament and its new measures, Harvey stuck to the king. But there is no record of any contention in College. And good liquor is of no party.

CHEMICUS. As you have begun to criticize your orator of to-day, I should like to ask him to explain his allusion in the oration to this same "good liquor." Is it ever "good"? Are not physicians wrong in encouraging by their example the use of what they cannot but acknowledge is a fruitful source of disease and crime?

ORATOR. I shall hand you over to Medicus for an answer. He is bottle-holder.

MEDICUS. I certainly look like it, just now. Is everybody else taking claret?—Seriously, my dear brother Abstinence, do you think your asceticism has ever converted a Silenus from the error of his ways? Has it not rather confirmed him in the notion that, if he abandons criminal excess, he is doomed to water for the rest of his days? A much better example is an educated man, who can take a wholesome quantity of alcohol, and not exceed. When the poor drunkard sees that, he grows ashamed of his folly.

CHEMICUS. The force of example is slow and silent; one does not expect to make startling conversions with it. But, certainly, several of my own family have followed my lead in becoming total abstainers. And we are all thus enabled to take an active part in pressing on the legislature repressive measures. By giving up an indulgence, a lawful pleasure if you like, we gain a right to demand that dangerous excesses should be rendered, at all events, more difficult. We propose a mutual compact, such as lies at the foundation of all modern government: the squire gives up his few glasses of claret, which I will allow do him no harm, on consideration that the laborer abstains from the gallon of beer which makes him a nui-

sance to his neighbors. I do not wish to take higher ground than the theory of Social Contracts.

MEDICUS. And you have said enough to condemn the theory of Social Contracts to the limbo of shams forever. What justice is there in taking away from your best citizen—that is, the temperate, reasonable user—what is good and wholesome for him, in order that the abuser, your worst citizen, may be put out of the reach of temptation? Can a nation ever be great, manly, and free, which so coddles its weakly members?

CHEMICUS. But I cannot allow abstinence from Alcohol to involve any real loss, or that it is good and wholesome as a daily food to any efficient citizen. It is an arrester of interstitial metamorphosis, a chain upon the vigor of life. Its action upon living tissues is the same as upon dead tissues, it puts a stop to those continuous chemical changes which are essential to the usefulness of organic matter. The deadening effect is directly proportioned to the dose; at least, nothing has as yet impugned the experiments of Bœcker, as confirmed by Edward Smith, Parkes, and others. The fact of the poisoning is the same, whether a man strikes himself dead by swallowing a bottle

of gin, or only just diminishes his sensibility by a glass of beer. It is a mere question of degree. You do not complain because the dangers of the unrestricted sale of arsenic have compelled the legislature to throw difficulties in the way of purchasing small quantities, which some person had got into the habit of taking as a condiment like the Styrian peasants. Neither should you call it a misfortune if there were an impediment to the daily consumption of alcohol for mere pleasure.

MEDICUS. Stop there, if you please. "For mere pleasure." And is the loss of a pleasure no loss? But I contend there is, to the majority of persons, beyond the mere pleasure, a use in the daily allowance of alcohol. You must not look upon a man as a mere furnace, into which you are to put so much fuel, and claim so much, and only so much, power. Social duties are constantly, without warning, making demands upon us which work the nervous system, so as to cause an abnormal amount of destructive assimilation in it. Perhaps the evidence of this which will best satisfy you, is the increase of phosphates and sulphates in the fluid excretions. Psychicus will care more to notice the peculiar condition of mind

which follows enforced and overstrained mental effort or absorbing passion. The bodily disease strikes me most. I would describe all three, metaphorically, by saying that the nervous system has a difficulty in putting on a break; but when forcibly set in motion, tends to run on "by itself," as railway porters say. There is an involuntary and useless repetition of both psychical and physical processes, and the body is as much exhausted by them as if the will had directed their continuance. Do not suppose I am representing this rotatory recurrence of nervous work as a weakness or as a disease; it is, on the contrary, a mighty force, if rightly directed. It is too valuable to be wasted. And the most ready way of saving it is by alcohol, whose gentle, sedative control supplies the break that is required.

PSYCHICUS. I can bear witness to the enormous value of alcohol in the management of insanity. That, and plenty of nourishing food, are the strong points in which we have improved of late years. Insanity is best treated as a disease of the stomach.

VAIN POMPS. I wish I understood all that scientific argument. I have always thought my glass of claret was a minor vice, and pleaded

in excuse, "Is it not a little one?" It would be much more satisfactory to feel one's self merry and wise at the same time, when taking a "break."

CHEMICUS. Then fermented liquors are physic, not food? You should not take physic every day. Does not the same word in Greek mean "drugs" and "poisons"?

VAIN POMPS. Well, there's my grandmother takes a black dose every blessed morning of her life, and she is a wonderful old woman for her age.

MEDICUS. It is really astonishing to a physiologist, how little injury to the constitution is done by what all must allow to be over-drugging. I cannot say I ever advise such practices, but when people have empirically adopted them, I feel chary in pronouncing the decisions of science on the subject. There seems a selecting power somewhere in the body. It gets into a habit of using the drug when it is wanted, and throwing away what is not wanted. Obviously, this must be the case with solid food. The safety-valve of the Ἀφελδρῶν, as our Vicar would call it, removes superfluities innocuously: or the only safe course would lie in weighing out our slices of mutton by grains, proportioned to the number of steps we

have taken in the day. We should have to keep a clerk to do our sums. There are, likely enough, many days when I should be just as well without my grog; but, in this busy world, there are also a good many when I am sure it puts a stop to a noxious wear and tear; to avoid a perplexing calculation, I take it daily while in harness, and what does not benefit me, is decomposed or somethinged out of the body.

CHEMICUS. I must have a much more definite description of what becomes of the superfluous alcohol, before I place it on the table for daily use. To its diminished consumption I am disposed to attribute that physical improvement of our countrymen which I am happy to hear believed in by Orator.

VAIN POMPS. If I remember right, however, he gave the doctors the credit of it. Didn't he?

ORATOR. No, not entirely. In point of fact I did not claim for us, as individuals, any special sagacity that I know of. I attributed the improvement in our practice to a change in the notions respecting life, health, and disease, brought about by the advances of biology. These changed notions affect the non-professional public as well as us, and independently of our influence.

They have been contemporaneous with a considerable diminution of unreasonableness in all that relates to the management of the body, and I do not know why one should scruple to trace the sequence as cause and effect.

MEDICUS. Surely you are not going to credit your Restorative Medicine—a somewhat pretentious name, by the way, for a theory of therapeutics—you are not going to attribute to a theory not ten years old, improvements in social habits and sanitary matters which have been going on during the last two generations.

ORATOR. Don't be modest, say "twenty" generations, say "always," and you would be right. Social matters have always been improving steadily, from the time of the earliest records we have. Restorative Medicine I described simply as the formulizing of the present state of an improvement, which has been going on from the first dawn of the art of healing. In the sketch of its history I ventured to bore the College with, I mentioned no theory that was not a real step in advance, that was not grounded on a real addition to scientific knowledge, and that has not influenced the great, busy world, as well as philosophers in their studies.

VICAR. To an outsider it seems as if the principal improvement in the treatment of sickness is the adoption of the motto "Prevention is better than cure." I am told preventive medicine is not yet taught to medical students. Don't you think it ought to be?

ORATOR. Certainly not as a separate subject. The principles of hygiene and of curative medicine are the same, and I think it would be a retrograde and fatal step to do anything that would lead to their divorce in a young man's mind. Medicine would fall back into its mediæval condition of unmitigated drugging; and hygiene itself would lose, by the body in its abnormal states being excluded from its domain. How can you rightly teach the causes of disease without teaching the causes of health? There is no rational line of distinction between the qualities of mind and the way of looking at things, which enable a practitioner to cure and to prevent. Aid to either result is based on the same facts and experiments, reasoned upon by the same physiology, and indeed as to most of our measures adopted during sickness it is impossible to say if they are principally directed to prevent harm or to cure existing evil.

VICAR. I was up at Oxford to our gaudy-day a fortnight ago, and after hall I heard one of the scientific professors talking of their giving a degree in State Medicine. From what was said, it strikes me a State Doctor would be the sort of man to prevent sickness, and a physician to cure it.

ORATOR. The difference is purely one of administration. The physician applies to cure and prevent the abnormal in the living man, the same principles which the officer of health applies to airs, waters, and places, both for cure and prevention. I should give them both the same education, and it is certainly convenient generally to combine the offices in the same individual.

VAIN POMPS. But how is a physician to know about building sewers, waterworks, and all that sort of thing? A state-doctor ought to doctor the town all together.

ORATOR. You will never raise up a profession advantageously combining the offices of physician and engineer; although an individual may now and then be sufficiently skilled in both their arts. All that a professional sanitarian can possibly do well is to point out the sources of danger to the public, and the requisite conditions to be fulfilled in overcoming them. I should be sorry to live

under a roof or over a drain built after his designs.

To say the truth, Mr. Vicar, I do not agree with the professor, in thinking it desirable to give a degree in State Medicine. The result of over-specializing is to lower the standard of general requirements for the candidates in special subjects.

VICAR. For the proposed degree I do not see why you should require surgery, anatomy, pathology, or even so much physiology as physicians are examined in.

ORATOR. I am sure that to demand an inferior knowledge of physiology from State Doctors than from ordinary practitioners would be fatal to their usefulness. While at the same time it is impossible to prescribe a longer or a more expensive course of study for them; since the means of repayment do not exist, either in the shape of money or honors.

The use of a degree or a license is to guide roughly the necessarily ignorant public. It says a man is fit to do what he professes, to teach, or to preach, or to practise. Now the appointers of State Doctors certainly ought to be, and probably will be, not the general public, but limited committees, or single responsible individuals; these

acquire special information, want no degree to guide them, and even make a better choice, if quite unfettered.

PSYCHICUS. I have always congratulated myself on there being no separate doctorate for practitioners in lunacy. Had there been such a thing, we should infallibly have sunk in social and in professional rank; whereas now we occupy what must be considered a high position, as the equals of hospital physicians, in spite of what you call our specialism.

CHEMICUS. But surely some technical instruction should be attainable by the student of sanitary matters.

ORATOR. Yes, but of a sort that may lend itself to the requirements of the engineer, the clergyman, the social reformer and legislator, as well as of the physician. What I should like to see introduced would be, not regular lectures, which are dismal, sleepy affairs, but peripatetic visits to the Airs, Waters, and Places which are the homes of—of—

MEDICUS. Of the seven other spirits, more wicked than himself, which Carelessness has brought back to the house swept and garnished by Civilization.

VICAR. Like old Buckland's geological lectures on Headington Hill. Instead of extinct fauna, I suppose your professor would dig up Malaria, Putrefaction, Slime, Grime, and Frowst.

MEDICUS. Fever-germs six; and Previous Sewage Contamination—that 's seven, to make up my number.

CHEMICUS. Among the bad spirits please not to forget Spirituous Liquors—that 's eight. Unless you substitute it for Previous Sewage Contamination, which some of us do not believe in.

ORATOR. The object of the demonstrations should be to make known what the things read of in Blue Books look like, smell like, and feel like. A very vivid impression upon all the senses at once might be made in a very short course of lectures.

CHEMICUS. This would not teach forensic medicine. It is intended that the state doctorate should furnish men qualified to give technical evidence in courts of justice.

VAIN POMPS. A great desideratum. Yes, indeed, for everybody's comfort. I thought I should have died of laughing last assizes, to hear a medical witness badgered. It served him right, for he knew nothing about the subject he was examined upon, the effect of some poison, I think. Indeed,

I do not know how he should, unless he gives it to his patients now and then, to try.

CHIRURGUS. Hear! hear! If they ever put me in a witness-box, and begin to ask awkward questions, I shall say "I don't know; it is not my business." It would certainly be a good thing to have people who do make it their business.

ORATOR. Excuse me, but you are again mixing two things which have no kinship. There is not the least connection between sanitary matters and matters of police. There is not the same excuse even that there used to be for the union of the Admiralty and Divorce courts; the laws of evidence are not the same in each. I quite agree that there ought to be responsible officials, whose business should be to collect the technical evidence in cases such as are alluded to. But I doubt if the being decorated with a degree would guide the authorities to the choice of the right men; and I am quite sure they would not be the officers of health.

CHIRURGUS. In spite of all these new views about hygiene, biology, restorative medicine, and so on, it seems to me the practice of good practitioners has altered wondrous little. I have got an old day-book of my grandfather's, and I do

not find in it much of the violent treatment which it is the fashion to denounce allopathists as having employed. There are more pills and draughts ordered, it is true, but they are not so alarmingly poisonous as some of the drugs in the prescriptions my patients bring me down from the London physicians.

VAIN POMPS. I am glad you have mentioned that. It is really awful to think that a young assistant who has never made up ten doses in his life, should be sending me drugs which one reads of in the papers as poisoning whole families. He is tempted to do it by a sense of power and a wish to be dashing.

CHIRURGUS. The young fellows of the present day are really dangerous, as much for what they do not, as for what they do. To my thinking, it is a great pity that the old plan of apprenticeship has been given up. A hospital pupil nowadays gets so drenched with lectures on theories and views, that there is no room in his brains for common sense. He can tell you all about extraordinary and rare cases and wonderful new drugs, but he has no notion of treatment. I dare say with his 'scopes and his test-tubes he can make out a better diagnosis than I can; and then,

when asked what is to be done, says he should adopt *la mêdecine expectante.*

CHEMICUS. Can he do better, when he has made out an incurable lesion, than say it is incurable, and wait for the results? That is honest, at all events.

CHIRURGUS. I cannot say much for the honesty of only looking on when work is to be done. My idea is to try and find something that can be cured, treat that, and not think too much about the degenerations and organic lesions, that he hears so much of in his lectures.

ORATOR. Poor much-lectured student! Efforts are being made to relieve him of his burden, with which I heartily sympathize. The best example is that set by the University of Oxford, which for the medical degrees demands no certificates of attendance at lectures at all. She feels herself competent to discover by a searching examination the knowledge and readiness acquired by the candidates, in fact to exercise the true functions of an examining body. Those corporations who do not take the trouble to do this, but trust to the certificates of teachers, should be cashiered at an early date.

But I cannot attribute the "viewiness" of the

modern student wholly to his having to attend lectures. In the first place I doubt if he has more of it than his predecessors, and that which exists is the product, not of his training, but of his want of training. Under the apprenticeship system he became silently imbued with the methods of applying the means at our command to the relief of sickness. The substitute for this was intended to be hospital practice. But the tool has as yet not been fully pressed on its new whetstone. The personal influence of the master has been thrown aside, while the corporate influence of systematic clinical teaching is not brought into full play. It is a difficult engine to work properly, but when we have once set it rightly agoing, I believe we shall turn you out a much better practitioner than at any former period. The combination of the two systems is the worst of all; there is no more hopelessly unimprovable pupil at a hospital than one who has just seen enough practice to make him priggish. The example he sets his fellows of affecting to despise principles, or "theories" as he calls them, ruins the school, making others worse than himself. The true way of training good practitioners is to make the patients in the wards illustrations of principles. My idea of a

perfect hospital physician is one who never passes by a single bed without making it teach something to the students around him. He should always aim at giving his congregation what Rowland Hill, the preacher, used to call "posies," that is, little epigrammatic collections of the common sense of the matter. Very short, very commonplace, very often repeated may be the apothegm; but, like the rules in the old Eton grammars, it will stick. The pupil will thus be drilled into good habits of mind; and I must take leave so far to magnify my late office, as to assert that no one is so fit to drill him as the junior medical officers of our hospital schools.

CHIRURGUS. Oh, I dare say the lads may be taught a good many dodges in that way.

ORATOR. That is just what we do not want. The reason why I specified the junior officers was that they are the most likely to be possessed of an earnest knowledge of modern physiology, and would thus be the most likely to turn the material before them to the best account, namely, to the inculcation and grinding in of principles, not dodges.

CHIRURGUS. It seems to me that the best use a young man can make of the time he has to pass at

the hospital and school, is to lay up a store of facts for employment in after-life.

ORATOR. Of all unmanageable practitioners, preserve me from the storehouse of facts! When he begins with his "I remember a case like this," I prepare myself for a half hour wasted on a mass of utterly irrelevant twaddle. No, no; to the pupil trained to open his eyes, every morning brings facts enough to ground his practice upon, without digging up a mouldy collection, half of which are not facts at all, but only somebody else's opinions repeated so often that he believes they are observations of his own. "Educatio" means a bringing out of powers, not a cramming of geese. It attains its object best when it sharpens the senses to rightly appreciate and take in facts for themselves, and burdens the memory as little as possible. The teacher should be the interpreter of nature.

MEDICUS. But will all the interpreters read the book in the same way? Is there not a risk that the pupil's brain may be muddled by his being taught one day one doctrine and the next another? You said yourself in the Oration that each of the five (was it not five?) theories of therapeutics has its adherents still.

ORATOR. I am not pedantic about the number. Make them a dozen, if you like to reckon transitions, and variations, and combinations, or to take account of reactions and protests. But of those five, each one is an advance upon the last, and represents a stage of improvement in physiology. So that if a pupil does get a different teaching on Monday and on Tuesday, he soon comes to see merely that one is behind the other; and even if he should stick half-way, he still is on the right road, and may make up tide-way in after-life. Under any circumstances he is better than the mere routiner, or his master and water, which the apprentice was apt to become.

VICAR. I do not quite understand yet whether I am to call Restorative Medicine a novelty or no.

ORATOR. You would be right either way. It is a novelty, certainly, that there should be a general tendency in the profession to look upon disease as in all cases a deficiency of vital force, and to make the acknowledged aim of therapeutics the restoration of force. But it is not a novelty that patients should be treated in a manner perfectly justifiable on this principle, in spite of the prevailing doctrines of the schools, as Chirurgus has pertinently demonstrated out of his old day-book.

Experience is a vigilant monitor, and has often sternly checked the acts of a false or imperfect theory. For instance, according to the dominant theory of therapeutics when influenza first appeared in Europe, those who were bled ought to have got well; but they died, and so after several epidemics the lancet, in exceeding astonishment, was laid aside. And it is not a novelty that protests which take the form of restorative medicine should be uttered. Van Helmont, for example—

VAIN POMPS. Who was he?

MEDICUS. A crazy man who lived nearly three hundred years ago!

ORATOR. He was clear-headed enough when he began his chief work with the proposal to prove that it is neither in accordance with the rule of allopathy or of homœopathy, but by "endowing and enriching" the body, that cures are performed.* It is true he does not prove it—

MEDICUS. Perhaps the failure deranged his intellect.

ORATOR. He does not prove it because phy-

* Reference is intended to a passage in the 'Ortus Medicinæ.' "Ut non per contraria, neque per similia, sed duntaxat per dotata et adpropriata instituantur medelæ et sanationes."

siology did not at that time supply data. And I do not at all think we have proved it yet. But I believe we are on the way to do so. We have the data, and are on the right road to a demonstration of the restorative doctrine, that all disease is a partial loss of functional force, and that all successful treatment acts by restoring that force, either directly or indirectly.

PSYCHICUS. Would you call the fury of an acute maniac a symptom of diminished force? That seems rather paradoxical.

ORATOR. The controlling and regulating power of the mind is weakened, and so the emotional and reflex acts run on with abnormal rapidity.

CHEMICUS. How do you reconcile to the theory the great increase of bulk in certain diseases? For instance, the mass of fibrin which forms in the lungs during pneumonia, and still more, cancers, and other tumors, look exceedingly as if the perversion of nutrition took place in the direction of augment.

ORATOR. The new matter formed has an exceeding low vitality. It easily perishes and decays. It is almost amorphous also, and is in fact a transitional substance between an excrement and a tissue. It is an evidence of weakness in the same way as

the clotted gore round a wounded man is an evidence of weakness.

MEDICUS. Were I to acknowledge the doctrine, I should be puzzled to reduce it to practice. Our pharmacopœias are concocted on quite opposite principles. For one drug that assists constructive assimilation, there are several hundreds that I suppose you would call "destructives."

ORATOR. Their very variety and number is a confession of insufficiency. But I am not sure that some of them, under their more apparent guise of evacuants, do not conceal a partial constructive action. Take for example aloes. It is a purgative, evacuating effete tissue; but what a bracing effect it has upon the mucous membrane of the lower bowel! restraining its over-secretion of mucus, and restoring the elasticity of the congested bloodvessels. Digitalis, again, you class as a diuretic, and use it to get rid of the excess of water in dropsy. But how does it attain this end? By giving a tone to the irregularly contracting heart and arteries, as shown by the experiments of Dr. Handfield Jones and others. The drug that supplies a name to a tincture is sometimes credited with a cure really due to the spirit in

which it is dissolved. A teaspoonful or so of pure spirit several times a day is not to be scoffed at. However, I see no need for discarding your old favorites entirely. One may very often by their use indirectly aim at construction. The very type of destruction, bloodletting, may, by emptying the vessels, revive the circulation which had been stopped by congestion, and the same sort of influence may be exerted many times for good by purgatives, emetics, and mercurials.

CHIRURGUS. I am glad to see that I shall not be called upon to change my practice much. I dare say my patients will not find out whether I give them Mistura Rubra because my father gave it, or because it is in accordance with the newest lights.

ORATOR. Aye, but I do think you will change your practice a good deal within the next few years. I gave evidence in the oration you heard to-day of changes appearing not only in print, but in the drug-market. I suspect you have already changed your practice yourself more than you know without specially making a comparison. For example—

MARY. Please, sir, prayers is ready.

ORATOR. Then I will postpone my examples. Come, Mr. Vicar, let us go in, and you shall be our chaplain to-night. It has been an eventful day for me, and I shall sleep sound.

(*Ineunt omnes.*)

SEQUEL II.

Early Breakfast.

MEDICUS,	ORATOR,
CHEMICUS,	MRS. ORATOR
PSYCHICUS,	(*at the tea-table*).

PSYCHICUS. Good-morning, Orator; I hope you have not dreamed of Harveian orations and discussions.

CHEMICUS. Why should you hope that? I am sure we were all much interested, though not perhaps convinced, by the suggestive brain-work of yesterday.

PSYCHICUS. But one does not want too much of a good thing. It is a universal rule, I believe, that if a man dreams of his daily work, he is doing too much of it, or doing it amiss. He is either over-worked or under-strengthened. An intimate

friend of mine has lost a leg within the last few years. He is an inveterate dreamer; and when in ordinary health he always has two legs in his sleep; if he has but one, he knows that he is going to be not so well, and never finds his prognosis fail.

CHEMICUS. Strange, that the long past should more readily recur to the mind than the immediate past!

PSYCHICUS. I fancy the explanation lies in what Medicus was saying last night about the nervous system anent alcohol. Natural sleep should be a complete break to the mental processes. When they continue running on in the same strain, the repose is incomplete.

MRS. ORATOR. Won't you take some pigeon-pie, Mr. Chemicus, or fried bacon?

CHEMICUS. No, thanks. I have had some porridge, and I am going to wind up with that tempting fruit on the sideboard.

ORATOR. But why not some meat also? Man is an omnivorous animal.

CHEMICUS. Doubtless he eats everything; but he does not eat everything at once. Now, my digestion is somewhat weak, especially after I have been too long confined to the laboratory, and

when I consulted physicians about it, one told me to leave off one thing, and one another, till I had hardly anything left on my safe list. It is true that I was more comfortable when conforming to their rules of simplifying my diet, but I was not properly nourished. When I followed the late Dr. Cheyne, and fed upon "pulse and seeds," I could not get through my work: when I took only meat and biscuit I had a variety of troubles, which I believe you consider minor developments of scorbutus. Then I reflected upon what you just now said about the omnivoracity of man, and that he has got gastric glands to digest meat with, and salivary glands to digest vegetables. My past experience had taught me that I was not deficient in either, for I could live after a fashion on either animal or vegetable food separately. So I determined never to work both together, but to take one or two purely meat meals, and one or two purely vegetable meals daily. I find I can eat anything, one at a time.

MEDICUS. Capital! You combined simplicity with variety, and united the wisdom of the several doctors without neutralizing one by the other. If you make that plan generally known, we shall have many fewer dyspeptics to physic. I suppose

you did not carry on your investigations into alcohol?

CHEMICUS. I tried fermented liquors with several meals, but they always disagreed.

MEDICUS. That I call unfair. I am sure Orator will bear me out in saying that alcohol taken alone, as in the excellent plan you have devised out for your mixed diet, will often agree most easily with those who cannot digest it at meals. This is the reason why people can get the benefit of stimulants as medicine who cannot take them as food. It is a case of physic being better than food, for once and away.

CHEMICUS. What would be the use of the alcohol, thrown into the body in this parenthetical fashion?

MEDICUS. To make you less sensitive and fidgety, and so better able to digest the meal when it comes.

MRS. ORATOR. Like a glass of wine at eleven instead of at luncheon.

MARY. Please, M'am, the doctor's at the gate in his gig, and he says he will take down Mr. Medicus' and the other gentlemen's bags to the station, as he dares say they would like to walk.

PSYCHICUS. Very kind, I am sure. I suppose

"the doctor" is our friend Chirurgus, M.R.C.S., who was here last night.

MRS. ORATOR. Oh, yes. We are very countryfied here. You may be "*a*" doctor when you preside in the senate house in a red gown, but he is "*the*" doctor. It would not give him an additional title if he had ever so many university degrees. He does not choose to make himself ridiculous by having a new M.D. hung on to his tail, like that silly Dr. Slops in the next parish, after a trip to Scotland last year.

PSYCHICUS. I cannot hold university degrees quite so light as you do. A man has given himself a great deal of trouble, expended a considerable sum of money, and has at least an average amount of intelligence, all of which is indicated by the doctorate, and then—

MEDICUS. We all know what then, my dear fellow. The thing is done, there is no appeal; for in reality a man's title is not what he calls himself, but what other people choose to call him. Doubtless in old time the Doctor Medicinæ was a consultant, but in common parlance he is not so now. Let us accept the logic of facts. Some years ago, when I was growling over this subject, I chanced to take up at my club a Greek newspa-

per printed in London, in which was a report of some case at the Central Criminal Court. A policeman, pointing to one of the defendants, described him as "ὁ Κύριος χειρότερος ἐκ τοῦ ποτοῦ." I was interested enough to refer to the original evidence of which this was a translation, and found it to be "The gent rather the worse for drink." We all know what Κύριος means in Herodotus, Euripides, or, four hundred years later, in the New Testament, and it was startling to find it next used for a "gent" in an undignified position. "Dominus" has equally suffered, but somehow it never struck me so forcibly as the degradation of Κύριος. There was comfort in the feeling that the doctorate has never fallen like that once magnificent title.

ORATOR. On the occasion of fixing a common portal for admission into the profession, there seems an opportunity of gracefully yielding, and confirming by statute the established nomenclature. Some common term for all licensed practitioners is required, and I really cannot think of any better than that which the public have adopted.

PSYCHICUS. Then how should one know whether a medical person is a general practitioner or consultant, a physician or a surgeon, or even a male or a female?

ORATOR. Just as easily as it is known whether a lawyer is a solicitor or a Queen's counsel. I suppose nobody goes to a member of either profession without some information about the individual he intrusts with his health or his property. And the very first thing learnt is his professional status.

MEDICUS. It certainly would be rather alarming for a sensitive bachelor newly arrived in a neighborhood, to send for the nearest doctor on an emergency, and have a lady rustle up to his bedroom unannounced. The remedy is to make inquiry, no doubt; but one has not always time.

MRS. ORATOR. I do hope you are not going to let a crowd of women into the profession. We all hate the idea so; but it seems unkind to get up a petition against them.

ORATOR. Don't be prejudiced, padrona. There are a certain number of people of your sex who feel it indelicate to have a man about them in sickness; and where there are enough of them together to keep a doctor, as in large towns, it seems hard to put an obstacle in the way of their wishes.

MEDICUS. Are these eccentrically delicate persons the same as those who see no difficulty in

young gentlemen and ladies attending anatomical demonstrations and clinical visits together?

ORATOR. A joint education will certainly not answer. The ladies must arrange to have separate classes, and separate times for hospital study. In London they have wantonly stirred up a good deal of opposition among the pupils, by going in as full-aged women (I mean women whose minds and bodies have attained full growth) and snatching prizes away in competition with lads. Then when they have succeeded in passing any sort of examination, they raise such a flourish of trumpets, as to make one almost forget they have done after all what even a stupid man is expected to do as a matter of course. However, they will find out the folly of this soon.

When the wished-for end is attained of having one examination as a portal to practice, women cannot justly be excluded from it. In fact, it is very desirable that they should be included. For, since some of the public are anxious to be attended by women, and there is nothing to prevent it in law, I believe, it is much better that we should have these medical persons under our control in the register, than that they should be free lances, who might conceal disgraceful practices under the

cloak of "Unregistered practitioner." The passing an examination would be a guarantee of respectability, as well as of knowledge. Very few are wanted in practice, but it is the business of the state to provide that these are good of their sort.

MRS. ORATOR. If I had my way, none should be wanted at all. I am astonished that well-educated ladies can be found to set such a bad example as to take up an occupation so peculiarly a man's as surgery.

ORATOR. Are not they good enough for the post?

MRS. ORATOR. Good enough? a thousand times too good. Their present duties, at home and abroad, are so important, that they should not be led to despise them by the vainglory of shining as second-rate men. But there's the quarter striking; if you are going to talk all the way to the station, as you have been doing at breakfast, you must be starting.

(*Farewells, regrets, and pretty speeches.*)

CHEMICUS. How stanchly conservative women are of the actual position of their sex! They seem to feel instinctively that if they attain to free competition with men in the arena of life, they will have to surrender a large portion of their present advantages, which men do not dispute on the un-

derstanding that women are not rivals. Ladies do not in general study political economy, otherwise I should suppose they had found out that by their entering professions they must as a body lose income.

ORATOR. It is the individuals who wish to gain income. But still I do not quite see your argument.

CHEMICUS. The income of each profession is the largest sum the public chooses to spend in that particular way. It cannot be increased by being divided among an additional number. Most medical men marry directly they can afford it, and their wives have the use of the professional income; so that if a doctress settles down in a village, and takes away half the practice, she is impoverishing her own sex after all. By working in professions women would at most gain what now they gain without working. If any large number entered a profession, they would reduce the rate of remuneration by competition. Medicus snubbed me last night when I ventured to use such an old-fashioned argument as the theory of an implied Social Contract, but I won't entirely forego it nevertheless. I think women feel that a point of honor is involved in their abstaining from

rivalry with us, so long as we perform our part with fidelity. They express their feeling by pronouncing it "unladylike," "unfeminine," &c. to engage in pursuits which they admire men for undertaking, and in pleasures which they freely tolerate. For example, though Mrs. Orator would as soon think of flying as of smoking, she handed me at parting the cigar which I am going to light.

MEDICUS. The ascetic Chemicus lighting a cigar!

CHEMICUS. You entirely mistake the bearing of Abstinence arguments, if you attribute our avoidance of alcohol to asceticism. We surrender that which, temperately used, is perhaps a harmless, though useless, pleasure, in order that its abuse may be restrained. If this is asceticism—

MEDICUS. Nay, but it is so; that is just the reason why St. Francis of Assisi enforced poverty on his followers.

CHEMICUS. Very well, then I will be an ascetic. But I claim the right to draw the line where I like, and I draw it at alcohol. The evils of its abuse are very great indeed, and I make what you consider a great sacrifice to try and prevent them. The greatest possible evil traceable to tobacco is infinitesimally small in comparison.

I believe that all the good which you attributed to a moderate employment of fermented liquors is to be got out of tobacco. But if I were to see people killing themselves and others by smoking, I should feel it a duty to leave it off for example's sake.

ORATOR. I am sure the best example a man can set is a moderate use, as Medicus said last night. If you want to set a model before an artist student, you do not select an exaggeration or caricature.

To return, however, to the previous question. I do not think it at all self-evident that female practitioners must be the rivals of men. Posts may be found for which they are not only competent, but especially suited. I should perhaps rather say "created" than found. As midwives of a superior sort there is an opening for them, not only to make a good income, but to really benefit the public. Consultant accoucheurs chafe sadly at being called on to dawdle attendance half a day in a lady's chamber, yet they dare not trust the half-educated *sage femme* of the present day. There are also to be provided for the eccentric folk, as Medicus calls them, who shrink from the eyes of an opposite sex. I own to a

sympathy with them, for once during a severe illness I sent for a male nurse, and much enjoyed the delicate and quiet attention he paid me.

It has often struck me that many of the difficulties of the poor clergy might be got over by their wives having studied physic during the four years usually given to "coming out," and to the unavailing pursuit of æsthetic arts, in which they rarely succeed. When married, a girl might add from £50 to £100 a year to a curate's income by acting as assistant to a neighboring practitioner, without omitting home duties. Of qualified assistants there is always a dearth, and to secure one certain not to kiss their maids, drink with the farmers, and insult their patients, would be a god-send to hundreds of practitioners to-morrow.

If medical women should be ambitious of a more public career, there are new paths opening where men have not yet trod, simply because they were not in existence. For instance, the government cannot any longer avoid taking up the subject of "baby-farming," as it is technically called, and there will be offices of the highest trust connected with the inspection of these establishments, whether public or private, which women would fill more efficiently than men. A knowledge of

physiology and hygiene are essential, and feminine tact, in dealing with the underlings, most important. Then there is the carrying out of the Contagious Diseases Act; ladies would be of the highest use in that sphere; their employment would entirely remove the main objection urged by its opponents, namely, the feeling of outrage which examination by a male conveys. I should like also to see the present "proprietresses" of lunatic asylums replaced by fully educated medical women.

PSYCHICUS. One of the employments you propose is not very savory.

ORATOR. When you come to that, every department of our profession has its disagreeable side. But if you see a man refuse in any walk of life to undertake a duty for which he is evidently cut out, on the score of its being repugnant to his fancies, you call him a poor creature. It is surely one of the holiest missions to bear arms in the encounter with the great devouring dragon of civilized society, fornication. An excellent example of the right attitude of medical women in respect of these Acts was given in a letter to the Pall Mall Gazette by Miss Garrett, the recognized leader of her class, and a strong advocate of the pro-

posed mode of dealing with vice. And were women to shirk the duty because it is not so pleasant as doctoring duchesses, I should give them up at once; just as I should tell a son that he had mistaken his vocation, if he got ordained with a determination to take nothing under a deanery.

PSYCHICUS. If women are to have such serious trusts committed to them, they must be made more legally responsible than at present. A lady has only got to take a husband, and make him stand by while she assaults or robs a lunatic, and she can get off scot free, as being under his coercion, like Mrs. Tarpey in the jewel robbery. He can easily disappear. Before married women are licensed, and before licensed women are allowed to marry, it should be made clear by statute whether an action would lie against them, or against their husbands, in the event of the misconduct of a case.

Pray, whose handsome house is that with the acres of glass around it? And here's the owner coming down the avenue driving—oh, what a lovely pair of bays!

ORATOR. Another case of irresponsible felony. That is the great "Professor Polypills," partner

of her gracious Majesty the Queen in the profits made by the sale of the Patent Peristaltic Persuaders.

PSYCHICUS. Eh, then he is not a myth. I have often longed to see in the flesh that notorious empiric. Strange, that the treasury does not blush at taking the dirty thirteen pence a box for the loan of the government sanction to a swindling trade. I remember a few years ago being consulted by an agent for the sale of some pretended method of curing all sorts of diseases—a pious man too—and I took the opportunity of showing him what a rogue he was. He made the excuse that government justified the business by granting a patent and selling the stamp.

ORATOR. But what do you say to members of our profession who allow their names to be placarded in the lying advertisements?

MEDICUS. There is nothing to be said against the strongest language possible in denouncing swindles. But I demur to the degradation of the word "empiric," implied in its application to such rascals. What are you, I, and all of us, but empirics? Have we any other solid basis for our practice, than the having tried this or that, or at all events our predecessors having tried this or

that, and found it to succeed? I trust, of course, that you will not understand me as sticking up for mere personal experience, "*tactus eruditus*," traditional lore, knack, or "*je-ne-sais-quoi*" of any kind. But still it appears to me not only that our therapeutics are not now grounded on science, but that they never can be so grounded. The primary causes of disease and of health must be bound up with the nature of life, which cannot be brought within the cognizance of our senses. It is only by its action on matter that science can know anything at all of life, or of that perverted form of life which we call disease. It is only by the average results of their effects on certain combinations of symptoms that we attain to a valuation of modes of treatment. Till we know what life is, we cannot expect to know how our drugs prolong it; and therefore I hold that the safest guide to practice is a calculation as purely empirical as the tables of an insurance office, not (alas!) so complete, but based on the same principle. So many per cent. have done well under this treatment, so many more under the other, so I adopt the other.

ORATOR. I differ from you *toto cœlo*. Oh, were medicine such a dismal business of summing,

I should give up my profession in a month. I cannot tell you how I differ from you.

MEDICUS. Try. There are three fields yet to the Station.

ORATOR. In the first place, I do not allow that a knowledge of the nature of life is essential to even a complete understanding of disease. Disease is, according to the restorative theory, a something taken away from life, according to the Galenical theory a something added to life, but certainly not coexistent with it, else how could it be abnormal? This perversion of vitality happens at various stages and degrees of the union of the individual and material animal. Sometimes it is almost purely spirit that is concerned, and it is difficult to draw a line between sin and disease. Sometimes the functions perverted are apparently the same as properties possessed by inanimate substances; and the more that the latter is the case, the more aid does the art of healing the perversion receive from physical science. This aid is real and practical; and I contend that, do what you will to stop your ears, you cannot shut out that inner physiological harmony which your professional life has attuned your soul to, and in time with which I see you walk. With a patient before

you, a thought of statistics never crosses your mind; you prescribe solely with a scientific prescience. Take, for example, a case of emaciation in a consumptive; instinctively there flashes before you the picture of the adipose cells not receiving their due supply of oil, of the blood not receiving it from the absorbent cells; and you reckon that if this supply can be replaced by a continuous flow of oil over the mucous membranes, Oleum Morrhuæ fulfils the indication. If it cannot be so replaced, the drug is not required. Or suppose the elasticity of some veins has diminished, and they are varicose. The loss of vital property leads you to put on a roller, and not the knowledge that so many per cent. of rolled legs are the better for the pressure, and so many unrolled legs burst, any more than the averages taken from cases treated at the Consumptive Hospital had led you to give cod-oil to the phthisical patient. And it is notable that the commoner the kind of disease, the more surely do we bring our science to bear upon it, reserving statistical arguments for strange and rare cases. This is very characteristic of modern medical literature. I am sure we have entered upon an era when science is, not only the readiest, but the safest guide to treatment. The origin of the dis-

eases we are best acquainted with is within the limits of what we know of organic bodies; and no more intimate knowledge of the nature of life than we already possess is needed to lead to scientific treatment in the majority of cases we have to cure.

I go further than this, and I contend that you have no right to suggest the impossible as a bar to our search after the nature of life. By tracing the qualities of inanimate matter in the living, gradually further and further, we shall arrive at their approximate limit, and thus gain a rough outline of what life is, and what are the substances and functions which lie between spirit and matter. This outline has been hitherto drawn too much on the side of matter; and I may say also, that it has been drawn too sharp; as if the qualities of the one could never by transference become the properties of the other. Strangely enough, it is the theologians who have insisted upon fixing an impassable gulf between spiritual and material characteristics; though one would have thought that the Λόγος ἐγένετο σὰρξ of St. John would have suggested transitional substances and times. I see in the far distance the promise of a union between physics and metaphysics. But I am not going to wait for that, and the main point I would make is that the

lesions of vitality in our patients are in those qualities which are either identical with or nearly resembling the qualities of inanimate bodies.

My strongest objection to your statistical or empirical mode of arriving at light is its impracticability. You cannot by an appeal to experience get a trustworthy answer to nine-tenths of the questions which crop up in daily practice. The changes which can be rung upon the various ways of being diseased in the various organs, in combination with one another, are so incalculably numerous, that it is impossible to collect enough instances whose circumstances are like enough to construct averages upon. The older we are the less frequently do two cases seem to us exactly similar.

CHEMICUS. I gave up practice, and took refuge in pure science, because it seemed to me to require the foreknowledge of an archangel to prescribe the simplest drug, either on empirical or physiological grounds. Cases are so infinitely varied that calculation appeared impossible.

ORATOR. Maybe we are qualifying ourselves for archangels by at all events trying at it.

MEDICUS. Nay, nay—I should not expect to be able to prescribe on just empirical grounds for each combination of symptoms which may present

itself. In fact, to the best of my ability, I do not prescribe for symptoms at all. I see a patient before me: I classify his disease as minutely as our means of diagnosis allow; and I then persist in the *methodus medendi* which experience has justified for the class in which he is included. Suppose, for instance, I have to do with a case of hepatic ascites; I prescribe immediately the same treatment which I have known succeed in other cases of hepatic ascites; I do not follow out the physiological action of each drug in my pill and my potion, and adapt it to the special requirements of the particular case. If I did, I should probably be undecided in my treatment and dilatory in its application. This empiricism was Sydenham's plan, as you see by his "Processus integri," and is the one best suited to slow thinkers, like myself, on whose minds the instinctive pictures of a patient's morbid processes do not flash in the way you describe. I should fear that the said pictures might too often be akin to works of imagination rather than to portrait-painting.

ORATOR. Not in a mind trained as yours has been in an atmosphere of physiological thought.

As to your *methodus medendi*, I willingly grant that such is the way one is forced to proceed very

often as an administrator; and that it is not on the whole unsuccessful. When several score of hospital patients are waiting to be prescribed for, and advice has to be given against time, it is wonderful how few mistakes are made by grouping the sick into broad classes for therapeutical purposes. But this is not the right way for a consultant to act: he is paid highly because he is supposed to give the whole leisure which can benefit his employer. The more time he spends the clearer he can discern the specialties of the case, and the better he can adapt the means of cure.

MEDICUS. My position is that such attempted adaptation is injurious. I presume you will allow the most scientific physician to be fallible—and I think the chances of his making a mistake, of serious import to the invalid, are indefinitely multiplied by bringing into the calculation so many circumstances resting on probable evidence. Their multiplication would proceed of course in a geometrical ratio. It must be remembered also that a physician's decision is not enlightened by a "*lumen siccum*;" and that he may be swayed by accident, love of opposition and paradox (especially in the summer months), the course of his studies, et cætera. We, miserable sinners, who

confess to all this impurity of intellect, feel ourselves safest when we take broad views of the country we have to ride over. Look at those two farms on each side of the valley; we get from here a much better notion of their comparative lie, capabilities, and value, than if we went sniffing about among the turnips and mangold represented by blue and purple blotches when seen from this embankment.

ORATOR. You speak as a sportsman and landscape artist, not as a farmer.

CHEMICUS. If such a *methodus medendi*, continuously revised up to the knowledge of the day, could be adopted by each school, there would be no use for consulting physicians and surgeons.

MEDICUS. Oh yes, plenty of them would be wanted as teachers, and for the continuous revision which is certainly necessary. Besides which, the ordinary attendant wants his diagnosis confirmed or rectified by a person who can look on from a new point of view. But when the diagnosis is correct, the treatment is usually right in the main, and I am sure the tinkering it is likely to get in a consultation does more harm than good. I make it a rule either to leave alone, or to alter entirely the treatment, if needs must.

ORATOR. You will have the last word; for here's the train coming up just as we get to the station, and the boy with the morning papers.

VAIN POMPS. Good-morning, gentlemen. I suppose you settled everything in the medical world after I went off last night.

MEDICUS. Ha, ha! fancy discussion ever settling anything! No; but I flatter myself we *un*settled a good deal of moral mould and dust from several questions.

VAIN POMPS. I'm looking for a smoking-carriage. (*Aside.*) I could not stand another such dose of doctor's stuff as I got last night.

(*Exeunt omnes, behind the morning papers.*)

By the Same Author.

THE INDIGESTIONS;

OR, DISEASES OF THE DIGESTIVE ORGANS FUNCTIONALLY TREATED.

By THOMAS KING CHAMBERS, M.D.,

Senior Consulting Physician and Lecturer on the Practice of Medicine at St. Mary's Hospital, &c.

Third American Edition, Enlarged and Revised by the Author.

In one very handsome octavo vol. of nearly 400 pp.: extra cloth, $3 00.

The rapid exhaustion of the previous reprint in America is a cheering sign of the studious habits of our profession, and we are accordingly rewarded by having an original edition of our own, which is in advance of the English issue. For it is thoroughly worked over, much of it re-arranged and re-written, with an increase of 95 cases, and, altogether, of over 60 pages.—*St. Louis Med. and Surg. Journal*, July, 1870.

A want of space prevents a more extended notice of this valuable work. It contains an immense fund of information that will be useful to the general practitioner.—*Richmond and Louisville Med. and Surg. Journal*, Sept. 1870.

Dr. Chambers treats the subjects connected with the indigestions with masterly philosophy and good sense; indeed he carries conviction to his attentive readers. The new editiou, though similar to the first and second, is yet more complete, and will be found to contain the most recent and sound views upon all subjects connected with dyspepsia.—*Buffalo Med. and Surg. Journal*, July, 1870.

Apart entirely from the merits of this work, which have been so highly appreciated by the profession that a large edition has been exhausted in an unprecedentedly short time, the book is one of the most readable in medical literature; such a one, in fact, as a wearied practitioner, anxious to gain information, but too tired to take to heavy work, would be delighted to pick up in a spare half hour.—*London Med. Times and Gazette*, Nov. 23, 1867.

We have been betrayed by the great importance of the subject of which this volume treats, and by the excellence of the work, into a longer notice of it than our space will perhaps justify, and we close by again commending the work to our readers.—*Mich. Univ. Med. Journal*, Dec. 1870.

It is not often that we can say of a medical treatise that it is as interesting as a novel. We may say this of Dr. Chambers' work without any disparagement of its matter. It is a book which may be taken up with pleasure when heavier reading would prove tiresome.—*Amer. Journ. Med. Sciences*, July, 1870.

HENRY C. LEA, Philadelphia.

NEW MEDICAL BOOKS.

ATTFIELD'S CHEMISTRY: GENERAL, MEDICAL, AND PHARMACEUTICAL; including the Chemistry of the U. S. Pharmacopœia. From the Second and Enlarged London Edition, revised by the author. 1 vol. royal 12mo., pp. 552: extra cloth, $2 75; leather, $3 25.

BLANDFORD ON INSANITY AND ITS TREATMENT. With a Summary of the Laws in force in the U. S. on the Confinement of the Insane, by ISAAC RAY, M.D. In 1 handsome 8vo. vol. of 471 pp.: extra cloth, $3 25.

WEST ON SOME DISORDERS OF THE NERVOUS SYSTEM IN CHILDHOOD. 1 vol. small 12mo.: extra cloth, $1 00.

HAMILTON'S PRACTICAL TREATISE ON FRACTURES AND DISLOCATIONS. Fourth Edition, thoroughly revised. 1 large vol. 8vo., with several hundred illustrations. (*Nearly Ready.*)

ASHHURST'S PRINCIPLES AND PRACTICE OF SURGERY; For the use of Students and Practitioners. 1 vol. 8vo., with about 550 illustrations. (*In press.*)

SMITH'S PRACTICAL TREATISE ON THE WASTING DISEASES OF INFANCY AND CHILDHOOD. Second Edition. 1 vol. 8vo.: extra cloth, $2 50.

BUMSTEAD'S PATHOLOGY AND TREATMENT OF VENEREAL DISEASES. Third Edition, revised and enlarged, with illustrations. In one large 8vo. vol.: extra cloth, $5 00; leather, $6 00.

CULLERIER AND BUMSTEAD'S ATLAS OF VENEREAL DISEASES. In one large imperial 4to. vol., with 26 colored plates, containing about 150 figures: extra cloth, $17 00.

HEATH'S PRACTICAL ANATOMY; A Manual of Dissections. 1 vol. royal 12mo., with 247 illustrations: extra cloth, $3 50; leather, $4 25.

SWAYNE'S OBSTETRIC APHORISMS for the Use of Students commencing Midwifery Practice. 1 vol. small 12mo., with illustrations: extra cloth, $1 25.

TANNER'S MANUAL OF CLINICAL MEDICINE AND PHYSICAL DIAGNOSIS. New and Revised Edition. 1 vol. small 12mo.: extra cloth, $1 50.

HENRY C. LEA, Philadelphia.